PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Assistant Commissioner for Patents
United States Patent and Trademark Office
Box PCT
Washington, D.C.20231
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 18 May 2000 (18.05.00)	
International application No. PCT/US99/17107	**Applicant's or agent's file reference** PF-0567 PCT
International filing date (day/month/year) 27 July 1999 (27.07.99)	**Priority date** (day/month/year) 28 July 1998 (28.07.98)
Applicant TANG, Y., Tom et al	

1. The designated Office is hereby notified of its election made:

[X] in the demand filed with the International Preliminary Examining Authority on:

02 February 2000 (02.02.00)

[ ] in a notice effecting later election filed with the International Bureau on:

2. The election [X] was

[ ] was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO **34, chemin des Colombettes** **1211 Geneva 20, Switzerland**	Authorized officer F. Baechler
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

Form PCT/IB/331 (July 1992)

09174315 (5040)

PATENT COOPERATION TREATY

PCT

REC'D 26 FEB 2001
WIPO PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PF-0567 PCT	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US99/17107	International filing date *(day/month/year)* 27 JULY 1999	Priority date *(day/month/year)* 28 JULY 1998
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant INCYTE PHARMACEUTICALS, INC.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 9 sheets.

   ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

   I ☒ Basis of the report

   II ☐ Priority

   III ☒ Non-establishment of report with regard to novelty, inventive step or industrial applicability

   IV ☒ Lack of unity of invention

   V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

   VI ☐ Certain documents cited

   VII ☒ Certain defects in the international application

   VIII ☒ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
02 FEBRUARY 2000	13 JANUARY 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer MARIANNE DIBRINO Telephone No. (703) 308-0196

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US99/17107

I. Basis of the report

1. With regard to the **elements** of the international application:*

[X] the international application as originally filed

[X] the description:
pages 1-59 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

[X] the claims:
pages 60-61 , as originally filed
pages NONE , as amended (together with any statement) under Article 19
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

[X] the drawings:
pages 1-7 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

[X] the sequence listing part of the description:
pages 1-12 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

[ ] the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

[ ] the language of publication of the international application (under Rule 48.3(b)).

[ ] the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

[X] contained in the international application in printed form.

[X] filed together with the international application in computer readable form.

[ ] furnished subsequently to this Authority in written form.

[ ] furnished subsequently to this Authority in computer readable form.

[ ] The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

[ ] The statement that the information recorded in computer readable form is identical to the writen sequence listing has been furnished.

4. [X] The amendments have resulted in the cancellation of:

[X] the description, pages NONE

[X] the claims, Nos. NONE

[X] the drawings, sheets/~~fig~~ NONE

5. [ ] This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

** Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).*

***Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been and will not be examined in respect of:

☐ the entire international application.

☒ claims Nos. 15, 16, 18 and 1-20 in part as they pertain to HEPI-2-6

because:

☐ the said international application, or the said claim Nos. _ relate to the following subject matter which does not require international preliminary examination *(specify)*.

☒ the description, claims or drawings *(indicate particular elements below)* or said claims Nos. 15, 16 AND 18 are so unclear that no meaningful opinion could be formed *(specify)*.

Claims 15, 16 and 18 relate to an agonist and an antagonist respectively, of the polypeptide of claim 1 without giving true technical characterization. In addition, claim 18 relates back to claim 16 for the use of said antagonist in a medical treatment. In consequence, the scope of said claims is ambiguous and vague, and their subject matter is not sufficiently disclosed and supported (Articles 5 and 6 PCT). No search can be carried out for such purely speculative claims whose wording is, in fact, a mere recitation of the results to be achieved.

☐ the claims, or said claims Nos. _ are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. (See Attached) .

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US99/17107

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

   [X] restricted the claims.

   [ ] paid additional fees.

   [ ] paid additional fees under protest.

   [ ] neither restricted nor paid additional fees.

2. [ ] This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

   [ ] complied with.

   [X] not complied with for the following reasons:

Please See Supplemental Sheet.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

   [ ] all parts.

   [ ] the parts relating to claims Nos. _.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. statement

Novelty (N)	Claims	(Please See supplemental sheet)	YES
	Claims	(Please See supplemental sheet)	NO
Inventive Step (IS)	Claims	(Please See supplemental sheet)	YES
	Claims	(Please See supplemental sheet)	NO
Industrial Applicability (IA)	Claims	(Please See supplemental sheet)	YES
	Claims	(Please See supplemental sheet)	NO

2. citations and explanations (Rule 70.7)

Claims 4, 7, 8, 10 and 11 lack novelty under PCT Article 33(2) as being anticipated by The WashU-HHMI Mouse EST project accession no. AA059561.

Accession no. AA059561 teaches a polynucleotide sequence of a fragment of SEQ ID NO: 7(encodes fragment of SEQ ID NO: 1), and an expression vector and host cell comprising said polynucleotide.

Claim 7 lacks novelty under PCT Article 33(2) as being anticipated by Zhao et al (Genomics, 1997).

Zhao et al teach a polynucleotide comprising a polynucleotide sequence (xp5)of a fragment of SEQ ID NO: 7.

Claims 1-3, 6, 9 and 12-20, in part as they pertain to HEPI-1, meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest: a polypeptide comprising SEQ ID NO:1 or a fragment thereof; a polynucleotide having a sequence complementary to a polynucleotide encoding SEQ ID NO: 1 or a fragment thereof; a polynucleotide having a sequence which is complementary to SEQ ID NO: 7; a method for producing a polypeptide with the sequence of SEQ ID NO: 1 or a fragment thereof; a pharmaceutical composition comprising said polypeptide; a method of treatment/prevention using siad composition; or a method for detecting a polynucleotide with the sequence of SEQ ID NO: 1 or a fragment thereof.

---------- NEW CITATIONS ----------

NONE

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 1-20 in part as they pertain to HEPI-1 are objected to as lacking clarity under PCT Rule 66.2(a)(v) because practice of the claimed invention is not enabled as required under PCT Rule 5.1(a) for the reasons set forth in the immediately preceding paragraph.

Since the claimed invention (see below) is not supported by either a specific asserted utility or a well established utility for the reasons detailed below, one skilled in the art clearly would not know how to use the claimed invention.

Claims 1-20 in part as they pertain to HEPI-1 are objected to because the claimed invention is not supported by either a specific asserted utility or a well established utility.

Claims 1-20, in part, are drawn to polypeptide HEPI-1, and fragments thereof, pharmaceutical compositions comprising said polypeptide, methods of treatment/prevention of disorders associated with increased or decreased expression or activity of HEPI-1 using said compositions, the polynucleotides encoding said polypeptide, methods of detecting said polynucleotides, and complementary polynucleotides thereof.

The specification discloses that HEPI-1 through HEPI-6 are human epidermal proteins (page 14 of the specification at lines 25-26). The specification discloses on page 25 at lines 15-22, that chemical and structural similarity, in the context of sequences and motifs, exists between regions of HEPI and human epidermal proteins and that expression of HEPI is closely associated with cell proliferation, cancer, inflammation and immune response. The specification further discloses "Therefore, HEPI appears to play a role in epithelial, cell proliferative, and autoimmune/inflammatory disorders." The specification discloses a list of disorders that can be treated/prevented by administration of HEPI (page 25 at lines 23-35 and page 26 at lines 1-29). However, Tables 1 and 3 of the specification disclose that SEQ ID NO: 7 is expressed not only in dematologic tissue, but in reproductive tissue and hematopoietic tissue, and is found by hybridization studies to be present in some cases of proliferation, cancer or inflammation. Therefore, the data presented in the specification indicate widespread expression. In addition, the assertion that the disclosed polypeptide has biological activities that support it's use in the prevention and treatment of epithelial, cell proliferative, and autoimmune/inflammatory disorders cannot be accepted in the absence of supporting evidence. Applicants have provided insufficient evidence that the claimed sequences are clinically (Continued on Supplemental Sheet.)

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:
IPC(7): C12N 5/10, 15/12, 15/62, 15/86; G01N 33/50; C12Q 1/68; C07K 16/18, 14/47; A61K 7/48, 48/00 and US Cl.: 530/324; 536/23.5; 435/252.3, 320.1, 69.1, 325, 70.1; 424/130.1, 141.1; 514/2

III. NON-ESTABLISHMENT OF REPORT:

No international search report has been established for claim numbers 1-20 in part as they relate to SEQ ID NO: 2-6 (HEPI-2-HEPI-6) .

IV. LACK OF UNITY OF INVENTION:

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2, and 13.3 is not complied with for the following reasons:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-20 in part, drawn to a substantially purified polypeptide HEPI-1 comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 1 and fragments, thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods of use, thereof; a pharmaceutical composition comprising said polypeptide; a purified antibody which specifically binds said polypeptide; purified agonists and antagonists, thereof.

Group II, claims 1-20 in part, drawn to a substantially purified polypeptide HEPI-2 comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 2 and fragments, thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods of use, thereof; a pharmaceutical composition comprising said polypeptide; a purified antibody which specifically binds said polypeptide; purified agonists and antagonists, thereof.

Group III, claims 1-20 in part, drawn to a substantially purified polypeptide HEPI-3 comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 3 and fragments, thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods of use, thereof; a pharmaceutical composition comprising said polypeptide; a purified antibody which specifically binds said polypeptide; purified agonists and antagonists, thereof.

Group IV, claims 1-20 in part, drawn to a substantially purified

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

polypeptide HEPI-4 comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 4 and fragments, thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods of use, thereof; a pharmaceutical composition comprising said polypeptide; a purified antibody which specifically binds said polypeptide; purified agonists and antagonists, thereof.

Group V, claims 1-20 in part, drawn to a substantially purified polypeptide HEPI-5 comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 5 and fragments, thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods of use, thereof; a pharmaceutical composition comprising said polypeptide; a purified antibody which specifically binds said polypeptide; purified agonists and antagonists, thereof.

Group VI, claims 1-20 in part, drawn to a substantially purified polypeptide HEPI-6 comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 6 and fragments, thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods of use, thereof; a pharmaceutical composition comprising said polypeptide; a purified antibody which specifically binds said polypeptide; purified agonists and antagonists, thereof.

The inventions listed as Groups I-VI do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The isolated polynucleotide of independent claim 7 as it reads on HEPI-1 is taught by the prior art.

V. 1. REASONED STATEMENTS:
The report as to Novelty was positive (YES) with respect to claims 1-3, 5, 9, 12-20 in part as they relate to HEPI-1.
The report as to Novelty was negative (NO) with respect to claims 4, 7, 8, 10 and 11 in part as they relate to HEPI-1 .
The report as to Inventive Step was positive (YES) with respect to claims 1-3, 5, 9, 12-20 in part as they relate to HEPI-1.
The report as to Inventive Step was negative (NO) with respect to claims 4, 7,8, 10 and 11 in part as th y relate to HEPI-1 .
The report as to Industrial Applicability was positive (YES) with respect t claims 1-20 in part as they relate t HEPI-1.
The rep rt as to Industrial Applicability was negativ (NO) with r spect to claims 1-20 in part as they relate to HEPI-1.

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

VIII. CERTAIN OBSERVATIONS ON THE APPLICATION (Continued):
relatd to the plethora of immunological diseases/disorders disclosed in the specification on pages 25 and 26, and have provided insufficient evidence of a specific utility in treating/preventing said diseases. Also, if one of skill in the art were to detect a polynucleotide encoding said polypeptide, it has not been disclos d what relevance, if any, said detection would have in the prevention or treatment of said diseases/disorders, or in any other clinical condition. Thus the Applicants have failed to provide a specific utility for the claimed invention.

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 :
C12N 15/12, 5/10, G01N 33/50, C12Q 1/68, C07K 16/18, A61K 7/48, C07K 14/47, A61K 38/47, C12N 15/86, 15/62, A61K 48/00

A3

(11) International Publication Number: WO 00/06727

(43) International Publication Date: 10 February 2000 (10.02.00)

(21) International Application Number: PCT/US99/17107

(22) International Filing Date: 27 July 1999 (27.07.99)

(30) Priority Data:

60/155,203	28 July 1998 (28.07.98)	US
60/155,254	7 December 1998 (07.12.98)	US

(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Applications

US	60/155,203 (CIP)
Filed on	28 July 1998 (28.07.98)
US	60/155,254 (CIP)
Filed on	7 December 1998 (07.12.98)

(71) Applicant *(for all designated States except US)*: INCYTE PHARMACEUTICALS, INC. [US/US]; 3174 Porter Drive, Palo Alto, CA 94304 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: TANG, Y., Tom [CN/US]; 4230 Ranwick Court, San Jose, CA 95118 (US). LAL, Preeti [IN/US]; 2382 Lass Drive, Santa Clara, CA 95054 (US). CORLEY, Neil, C. [US/US]; 1240 Dale Avenue #30, Mountain View, CA 94040 (US). GUEGLER, Karl, J. [CH/US]; 1048 Oakland Avenue, Menlo Park, CA 94025 (US). PATTERSON, Chandra [US/US]; 490 Sherwood Way #1, Menlo Park, CA 94025 (US). BAUGHN, Mariah, R. [US/US]; 14244 Santiago Road, San Leandro, CA 94577 (US). YUE, Henry [US/US]; 826 Lois Avenue, Sunnyvale, CA 94087 (US).

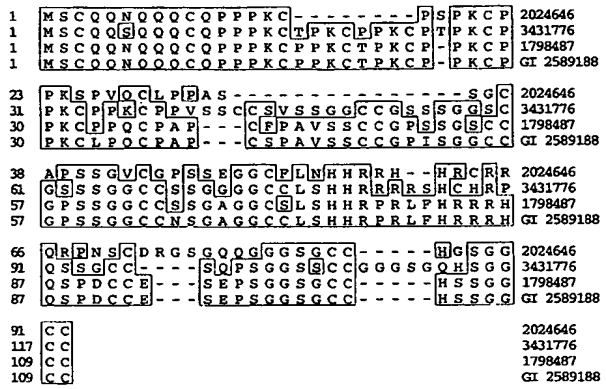
(74) Agents: BILLINGS, Lucy, J. et al.; Incyte Pharmaceuticals, Inc., 3174 Porter Drive, Palo Alto, CA 94304 (US).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.

(88) Date of publication of the international search report:
4 May 2000 (04.05.00)

(54) Title: HUMAN EPIDERMAL PROTEINS HEPI–1 TO HEPI–6



(57) Abstract

The invention provides human epidermal proteins (HEPI) and polynucleotides which identify and encode HEPI. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders associated with expression of HEPI.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

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EE	Estonia	**LR**	Liberia	**SG**	Singapore		

INTERNATIONAL SEARCH REPORT

Inter[illegible]onal Application No
PCT/US 99/17107

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N15/12 C12N5/10 G01N33/50 C12Q1/68 C07K16/18
A61K7/48 C07K14/47 A61K38/47 C12N15/86 C12N15/62
A61K48/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	The WashU-HHMI Mouse EST Project. accession number AA059561, sequence characterization : mj65f03.r1 Soares mouse p3NMF19.5 Mus musculus cDNA clone 480989 5' 24-SEP-1996 XP002121992 the whole document ---	4,7,8, 10,11
X	ZHAO X.P., ELDER J.T.: "Positional cloning of novel skin-specific genes from the human epidermal differentiation complex." GENOMICS 45:250-258(1997)., XP000852660 cited in the application the whole document ---	7

-/--

[X] Further documents are listed in the continuation of box C. [ ] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
10 November 1999	01.03.00

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	CHAMBONNET, F

2

Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	SIMON M., MONTEZIN M., GUERRIN M., DURIEUX J.-J., SERRE G.: "Characterization and purification of human corneodesmosin, an epidermal basic glycoprotein associated with corneocyte-specific modified desmosomes" J. BIOL. CHEM., vol. 272, no. 50, 12 December 1997 (1997-12-12), pages 31770-31776, XP002075788 Baltimore USA cited in the application the whole document ---	1
A	R;ZHOU, Y.; CHAPLIN, D.D.: "Identification in the HLA class I region of a gene expressed late in keratinocyte differentiation." PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA., vol. 90, 1993, pages 9470-9474, XP002049396 NATIONAL ACADEMY OF SCIENCE. WASHINGTON., US ISSN: 0027-8424 cited in the application the whole document -----	1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 99/17107

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [X] Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 17 and 18 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

2. [X] Claims Nos.: 15 16 18
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

see FURTHER INFORMATION sheet PCT/ISA/210

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. [ ] As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. [X] No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Claims 1-20 (partially)

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest.

[ ] No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/US 99/17107

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 15 16 18

Present claims 15 and 16 relate to an agonist and an antagonist respectively of the polypeptide of claim 1 without giving true technical characterization. In addition, claim 18 relates back to claim 16 for the use of said antagonist in a medical treatment claim.
In consequence the scope of said claims is ambiguous and vague, and their subject matter is not sufficiently disclosed and supported (Articles 5 and 6 PCT). No search can be carried out for such purely speculative claims whose wording is, in fact, a mere recitation of the results to be achieved.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/US 99/17107

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claim : Partially 1 to 20

A substantially purified polypeptide HEPI-1 comprising an amino acid sequence selected from the group SEQ ID NO: 1 and fragments thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods using thereof; a pharmaceutical composition comprising said polypeptide; purified antibody which specifically binds to it; purified agonists and antagonists thereof;

2. Claim : Partially 1 to 20

A substantially purified polypeptide HEPI-2 comprising an amino acid sequence selected from the group SEQ ID NO: 2 and fragments thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods using thereof; a pharmaceutical composition comprising said polypeptide; purified antibody which specifically binds to it; purified agonists and antagonists thereof;

3. Claim : Partially 1 to 20

A substantially purified polypeptide HEPI-3 comprising an amino acid sequence selected from the group SEQ ID NO: 3 and fragments thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods using thereof; a pharmaceutical composition comprising said polypeptide; purified antibody which specifically binds to it; purified agonists and antagonists thereof;

4. Claim : Partially 1 to 20

A substantially purified polypeptide HEPI-4 comprising an amino acid sequence selected from the group SEQ ID NO: 4 and fragments thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods using thereof; a pharmaceutical composition comprising said polypeptide; purified antibody which specifically binds to it; purified agonists and antagonists thereof;

5. Claim : Partially 1 to 20

A substantially purified polypeptide HEPI-5 comprising an

FURTHER INFORMATI N CONTINUED FROM PCT/ISA/ 210

amino acid sequence selected from the group SEQ ID NO: 5 and fragments thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods using thereof; a pharmaceutical composition comprising said polypeptide; purified antibody which specifically binds to it; purified agonists and antagonists thereof;

6. Claim : Partially 1 to 20

A substantially purified polypeptide HEPI-6 comprising an amino acid sequence selected from the group SEQ ID NO: 6 and fragments thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods using thereof; a pharmaceutical composition comprising said polypeptide; purified antibody which specifically binds to it; purified agonists and antagonists thereof;

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: LUCY J. BILLINGS
INCYTE PHARMACEUTICALS, INC.
3174 PORTER DRIVE
PALO ALTO, CA 94304

PCT

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing *(day/month/year)*	21FEB2001

Applicant's or agent's file reference	IMPORTANT NOTIFICATION
PF-0567 PCT	

International application No.	International filing date *(day/month/year)*	Priority Date *(day/month/year)*
PCT/US99/17107	27 JULY 1999	28 JULY 1998

Applicant
INCYTE PHARMACEUTICALS, INC.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.

2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.

3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US	Authorized officer
Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	MARIANNE DIBRINO
Facsimile No. (703) 305-3230	Telephone No. (703) 308-0196

Form PCT/IPEA/416 (July 1992)★

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PF-0567 PCT	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US99/17107	International filing date *(day/month/year)* 27 JULY 1999	Priority date *(day/month/year)* 28 JULY 1998
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant INCYTE PHARMACEUTICALS, INC.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 9 sheets.

   ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the report
   - II ☐ Priority
   - III ☒ Non-establishment of report with regard to novelty, inventive step or industrial applicability
   - IV ☒ Lack of unity of invention
   - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI ☐ Certain documents cited
   - VII ☒ Certain defects in the international application
   - VIII ☒ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
02 FEBRUARY 2000	13 JANUARY 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer MARIANNE DIBRINO Telephone No. (703) 308-0196

Form PCT/IPEA/409 (cover sheet) (July 1998)★

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US99/17107

I. Basis of the report

1. With regard to the **elements** of the international application:*

[X] the international application as originally filed

[X] the description:
pages 1-59 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

[X] the claims:
pages 60-61 , as originally filed
pages NONE , as amended (together with any statement) under Article 19
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

[X] the drawings:
pages 1-7 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

[X] the sequence listing part of the description:
pages 1-12 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

[ ] the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

[ ] the language of publication of the international application (under Rule 48.3(b)).

[ ] the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

[X] contained in the international application in printed form.

[X] filed together with the international application in computer readable form.

[ ] furnished subsequently to this Authority in written form.

[ ] furnished subsequently to this Authority in computer readable form.

[ ] The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

[ ] The statement that the information recorded in computer readable form is identical to the writen sequence listing has been furnished.

4. [X] The amendments have resulted in the cancellation of:

[X] the description, pages NONE

[X] the claims, Nos. NONE

[X] the drawings, sheets/~~fig~~ NONE

5. [ ] This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

** Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).*

***Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been and will not be examined in respect of:

☐ the entire international application.

☒ claims Nos. 15, 16, 18 and 1-20 in part as they pertain to HEPI-2-6

because:

☐ the said international application, or the said claim Nos. _ relate to the following subject matter which does not require international preliminary examination *(specify)*.

☒ the description, claims or drawings *(indicate particular elements below)* or said claims Nos. 15, 16 AND 18 are so unclear that no meaningful opinion could be formed *(specify)*.

Claims 15, 16 and 18 relate to an agonist and an antagonist respectively, of the polypeptide of claim 1 without giving true technical characterization. In addition, claim 18 relates back to claim 16 for the use of said antagonist in a medical treatment. In consequence, the scope of said claims is ambiguous and vague, and their subject matter is not sufficiently disclosed and supported (Articles 5 and 6 PCT). No search can be carried out for such purely speculative claims whose wording is, in fact, a mere recitation of the results to be achieved.

☐ the claims, or said claims Nos. _ are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. (See Attached) .

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

   [X] restricted the claims.

   [ ] paid additional fees.

   [ ] paid additional fees under protest.

   [ ] neither restricted nor paid additional fees.

2. [ ] This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

   [ ] complied with.

   [X] not complied with for the following reasons:

Please See Supplemental Sheet.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

   [ ] all parts.

   [ ] the parts relating to claims Nos. _.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. statement

Novelty (N)	Claims	(Please See supplemental sheet)	YES
	Claims	(Please See supplemental sheet)	NO
Inventive Step (IS)	Claims	(Please See supplemental sheet)	YES
	Claims	(Please See supplemental sheet)	NO
Industrial Applicability (IA)	Claims	(Please See supplemental sheet)	YES
	Claims	(Please See supplemental sheet)	NO

2. citations and explanations (Rule 70.7)

Claims 4, 7, 8, 10 and 11 lack novelty under PCT Article 33(2) as being anticipated by The WashU-HHMI Mouse EST project accession no. AA059561.

Accession no. AA059561 teaches a polynucleotide sequence of a fragment of SEQ ID NO: 7(encodes fragment of SEQ ID NO: 1), and an expression vector and host cell comprising said polynucleotide.

Claim 7 lacks novelty under PCT Article 33(2) as being anticipated by Zhao et al (Genomics, 1997).

Zhao et al teach a polynucleotide comprising a polynucleotide sequence (xp5)of a fragment of SEQ ID NO: 7.

Claims 1-3, 6, 9 and 12-20, in part as they pertain to HEPI-1, meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest: a polypeptide comprising SEQ ID NO:1 or a fragment thereof; a polynucleotide having a sequence complementary to a polynucleotide encoding SEQ ID NO: 1 or a fragment thereof; a polynucleotide having a sequence which is complementary to SEQ ID NO: 7; a method for producing a polypeptide with the sequence of SEQ ID NO: 1 or a fragment thereof; a pharmaceutical composition comprising said polypeptide; a method of treatment/prevention using siad composition; or a method for detecting a polynucleotide with the sequence of SEQ ID NO: 1 or a fragment thereof.

---------- NEW CITATIONS ----------

NONE

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 1-20 in part as they pertain to HEPI-1 are objected to as lacking clarity under PCT Rule 66.2(a)(v) because practice of the claimed invention is not enabled as required under PCT Rule 5.1(a) for the reasons set forth in the immediately preceding paragraph.

Since the claimed invention (see below) is not supported by either a specific asserted utility or a well established utility for the reasons detailed below, one skilled in the art clearly would not know how to use the claimed invention.

Claims 1-20 in part as they pertain to HEPI-1 are objected to because the claimed invention is not supported by either a specific asserted utility or a well established utility.

Claims 1-20, in part, are drawn to polypeptide HEPI-1, and fragments thereof, pharmaceutical compositions comprising said polypeptide, methods of treatment/prevention of disorders associated with increased or decreased expression or activity of HEPI-1 using said compositions, the polynucleotides encoding said polypeptide, methods of detecting said polynucleotides, and complementary polynucleotides thereof.

The specification discloses that HEPI-1 through HEPI-6 are human epidermal proteins (page 14 of the specification at lines 25-26). The specification discloses on page 25 at lines 15-22, that chemical and structural similarity, in the context of sequences and motifs, exists between regions of HEPI and human epidermal proteins and that expression of HEPI is closely associated with cell proliferation, cancer, inflammation and immune response. The specification further discloses "Therefore, HEPI appears to play a role in epithelial, cell proliferative, and autoimmune/inflammatory disorders." The specification discloses a list of disorders that can be treated/prevented by administration of HEPI (page 25 at lines 23-35 and page 26 at lines 1-29). However, Tables 1 and 3 of the specification disclose that SEQ ID NO: 7 is expressed not only in dematologic tissue, but in reproductive tissue and hematopoietic tissue, and is found by hybridization studies to be present in some cases of proliferation, cancer or inflammation. Therefore, the data presented in the specification indicate widespread expression. In addition, the assertion that the disclosed polypeptide has biological activities that support it's use in the prevention and treatment of epithelial, cell proliferative, and autoimmune/inflammatory disorders cannot be accepted in the absence of supporting evidence. Applicants have provided insufficient evidence that the claimed sequences are clinically (Continued on Supplemental Sheet.)

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:
IPC(7): C12N 5/10, 15/12, 15/62, 15/86; G01N 33/50; C12Q 1/68; C07K 16/18, 14/47; A61K 7/48, 48/00 and US Cl.: 530/324; 536/23.5; 435/252.3, 320.1, 69.1, 325, 70.1; 424/130.1, 141.1; 514/2

III. NON-ESTABLISHMENT OF REPORT:

No international search report has been established for claim numbers 1-20 in part as they relate to SEQ ID NO: 2-6 (HEPI-2-HEPI-6) .

IV. LACK OF UNITY OF INVENTION:

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2, and 13.3 is not complied with for the following reasons:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-20 in part, drawn to a substantially purified polypeptide HEPI-1 comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 1 and fragments, thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods of use, thereof; a pharmaceutical composition comprising said polypeptide; a purified antibody which specifically binds said polypeptide; purified agonists and antagonists, thereof.

Group II, claims 1-20 in part, drawn to a substantially purified polypeptide HEPI-2 comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 2 and fragments, thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods of use, thereof; a pharmaceutical composition comprising said polypeptide; a purified antibody which specifically binds said polypeptide; purified agonists and antagonists, thereof.

Group III, claims 1-20 in part, drawn to a substantially purified polypeptide HEPI-3 comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 3 and fragments, thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods of use, thereof; a pharmaceutical composition comprising said polypeptide; a purified antibody which specifically binds said polypeptide; purified agonists and antagonists, thereof.

Group IV, claims 1-20 in part, drawn to a substantially purified

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

polypeptide HEPI-4 comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 4 and fragments, thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods of use, thereof; a pharmaceutical composition comprising said polypeptide; a purified antibody which specifically binds said polypeptide; purified agonists and antagonists, thereof.

Group V, claims 1-20 in part, drawn to a substantially purified polypeptide HEPI-5 comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 5 and fragments, thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods of use, thereof; a pharmaceutical composition comprising said polypeptide; a purified antibody which specifically binds said polypeptide; purified agonists and antagonists, thereof.

Group VI, claims 1-20 in part, drawn to a substantially purified polypeptide HEPI-6 comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 6 and fragments, thereof; an isolated and purified polynucleotide encoding said polypeptide; an expression vector comprising at least a fragment of said polynucleotide; a host cell comprising it; methods of use, thereof; a pharmaceutical composition comprising said polypeptide; a purified antibody which specifically binds said polypeptide; purified agonists and antagonists, thereof.

The inventions listed as Groups I-VI do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The isolated polynucleotide of independent claim 7 as it reads on HEPI-1 is taught by the prior art.

V. 1. REASONED STATEMENTS:
The report as to Novelty was positive (YES) with respect to claims 1-3, 5, 9, 12-20 in part as they relate to HEPI-1.
The report as to Novelty was negative (NO) with respect to claims 4, 7, 8, 10 and 11 in part as they relate to HEPI-1 .
The report as to Inventive Step was positive (YES) with respect to claims 1-3, 5, 9, 12-20 in part as they relate to HEPI-1.
The report as to Inventive Step was negative (NO) with respect to claims 4, 7,8, 10 and 11 in part as they relate to HEPI-1 .
The report as to Industrial Applicability was positive (YES) with respect to claims 1-20 in part as they relate to HEPI-1.
The report as to Industrial Applicability was negative (NO) with respect to claims 1-20 in part as they relate to HEPI-1.

FORM PTO-1390 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371

ATTORNEY'S DOCKET NUMBER	
PF-0567 USN	
U.S. APPLICATION NO. (If known, see 37 CFR 1.5) TO BE ASSIGNED	**09/744315**

INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED
PCT/US99/17107	**27 July 1999**	**28 July 1998**

TITLE OF INVENTION
HUMAN EPIDERMAL PROTEINS HEPI-1 TO HEPI-6

APPLICANT(S) FOR DO/EO/US
INCYTE PHARMACEUTICALS, INC.; TANG, Y. Tom; LAL, Preeti; CORLEY, Neil C.; GUEGLER, Karl J.; PATTERSON, Chandra; BAUGHN, Mariah R.; YUE, Henry

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is the **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to promptly begin national examination procedures (35 U.S.C. 371 (f)).
4. ☐ The US has been elected by the expiration of 19 months from the priority date (PCT Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
   a. ☐ is attached hereto (required only if not communicated by the International Bureau)
   b. ☐ has been communicated by the International Bureau.
   c. ☒ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
   a. ☐ are attached hereto (required only if not communicated by the International Bureau).
   b. ☐ have been communicated by the International Bureau.
   c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
   d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11 to 16 below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.27 and 3.31 is included.
13. ☐ A FIRST preliminary amendment.
    ☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:

1) Transmittal Letter (2 pp, in duplicate)
2) Return Postcard
3) Express Mail Label No.: **EL 743 380 075 US**

FOR THE PURPOSES OF INFORMATION ONLY

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US 0974431503P1

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